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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,341	11/20/2003	Yiping Ma	114048-000001	1236

27189 7590 12/13/2006

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EXAMINER

RODRIGUEZ, GLENDA P

ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 12/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/718,341	MA ET AL.	
	Examiner	Art Unit	
	Glenda P. Rodriguez	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 46-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 46-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 46, 47, 49 and 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong et al. (US Patent No. 6, 683, 737) in view of Gill et al. (US Patent No. 6, 465, 854).

Regarding Claim 46, Gong et al. teaches a method for operating an information storage system comprising:

Positioning a read head to a first position where no user data is stored proximate a storage medium (Col. 5, L. 9-25 and Col. 6, L. 41-49, in which it evaluates the PES parameter, which is an evaluation parameter as described in the Applicant's Specification in Page 15, L. 19-25);

Comparing a value of an evaluation parameter to a predetermined level (Col. 7, L. 17-29);

However, Gong et al. does not explicitly teach wherein the head is cleaned if the error exceeds the predetermined level and changing to another position if the first position did not surpass the predetermined level. This limitation is taught by Gill et al., wherein it teaches cleaning the head if errors are detected in Col. 5, L. 32-35, 39-46 and Col. 6, L. 14-16 (Wherein Gill et al. teaches that if no error is detected, the method may end or if more blocks need to be written evaluated, it repeats the process of reading the track for errors in another track.). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Gong et

al.'s invention with the teaching of Gill et al. in order to optimize write error recovery procedures as taught in the Disclosure of Gill et al.

Regarding Claim 47, the combination of Gong et al. and Gill et al. teach all the limitations of Claim 46. The combination further teaches wherein repositioning the read head to the first position after head cleaning and re-detecting the value of the evaluation parameter (Col. 5, L. 36-60).

Regarding Claim 49, the combination of Gong et al. and Gill et al. teach all the limitations of Claim 46. The combination further teaches wherein the evaluation parameter is an error signal (Col. 5, L. 9-25 and Col. 6, L. 41-49 of Gong et al., in which it evaluates the PES parameter, which is an evaluation parameter as described in the Applicant's Specification in Pag. 15, L. 19-25).

Regarding Claim 54, the combination of Gong et al. and Gill et al. teach all the limitations of Claim 46. The combination further teach wherein the reserved track includes a radially inner portion of a disk (See Fig. 1 of Gong et al., wherein there is a disk. It is obvious that for the tracks being farther from the center from the disk there is a radial inner portion in the disk.).

Regarding Claim 55, the combination of Gong et al. and Gill et al. teach all the limitations of Claim 54. The combination further teach wherein data stored in radially inner portion of the disk is highly susceptible to errors (It is obvious to a person of ordinary skill in the art that as the radius of the disk gets smaller, the smaller the bits are recorded and hence, the more errors can be caused by recording operations.).

3. Claims 48, 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong et al. and Gill et al. as applied to claim 46 above, and further in view of Anderson et al. (US Patent No. 6, 215, 618).

Regarding Claim 48, the combination of Gong et al. and Gill et al. teach all the limitations of Claim 46. However, the combination does not explicitly teach wherein the first position is on a loading track. This is taught by Anderson et al. in Col. 3, L. 61-64 and Col. 5, L. 36-66. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify the combination's invention with the teaching of Anderson et al. in order to prevent errors in the medium as taught by Anderson et al.

Regarding Claim 50, the combination of Gong et al. and Gill et al. teach all the limitations of Claim 46. However, the combination does not explicitly teach wherein the evaluation parameter is flyheight. Anderson et al. teaches in Col. 6, L. 48-67 that the separation (i.e. flyheight) between the head and the disk is measured because it may cause errors in the medium.

Regarding Claim 51, the combination of Gong et al. and Gill et al. teach all the limitations of Claim 46. However, the combination does not explicitly teach parking (or stopping) the head when the second evaluation parameter exceeds a predetermined level. Anderson in Figs. 5A and 5B teach performing multiple tries by means of comparison in order to determine if the head must be parked because the errors still exceed the predetermined level and claim the drive test as a failure.

Regarding Claim 52, the combination of Gong et al., Gill et al. and Anderson et al. teach all the limitations of Claim 51. The combination further teach wherein moving the head for

normal operation when the second operation does not exceed the predetermined level (See Fig. 5A of Anderson et al., Element S3).

Regarding Claim 53, the combination of Gong et al., Gill et al. and Anderson et al. teach all the limitations of Claim 51. The combination further teach wherein the second evaluation is a soft error rate (See Fig. 5A, wherein it performs a second comparison in S4 while still reading and writing in the tape reel.).

Response to Arguments

4. Examiner acknowledges that Claim 26 has been amended in the Applicant's Amendment filed 10/02/06.

5. Applicant's arguments filed 10/02/06 have been fully considered but they are not persuasive. Applicants argue that neither Gong et al. nor Gill et al. teach positioning the head in a second position if the first position does not surpass a predetermined level. Examiner cannot concur with the Applicant. In Gill et al. Col. 5, L. 32-35 it teaches wherein if no errors were detected in the first position, the head would then transfer to a second position if any other tracks need to be evaluated for errors.

6. Examiner noted on Page 4 of the Applicant's Amendment as addressing remarks of Claims 2 and 3. Examiner assumed that the Applicant meant the Office Action pages 2 and 3.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO**


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MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (571) 272-7561. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea L. Wellington can be reached on (571) 272-4483. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


gpr
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SUPERVISORY PATENT EXAMINER